



United States Department of Agriculture
Natural Resources Conservation Service

Conservation Programs to Support Local Food Systems

Seasonal High Tunnels

Seasonal High Tunnels is a pilot project under the “*Know Your Farmer, Know Your Food*” initiative for farmers to establish high tunnels to increase the availability of locally-grown produce in a conservation-friendly way.



Contact NRCS:

Vermont USDA Service Centers

Berlin: 802-828-4493

Brattleboro: 802-254-9766

Middlebury: 802-388-6748

Morrisville: 802-888-4935

Newport: 802-334-6090

Rutland: 802-775-8034

St. Albans: 802-524-6505

St. Johnsbury: 802-748-2641

White River Jct.: 802-295-7942

Williston: 802-865-7895

www.vt.nrcs.usda.gov

Why Seasonal High Tunnels

A seasonal high tunnel is a polyethylene-covered structure at least 6 feet in height, which modifies the climate to create more favorable growing conditions for vegetable and other specialty crops grown in the natural soil beneath it. A 3-year pilot will test whether there are additional conservation benefits associated with the use of the structures. Note: electrical, heating and mechanical ventilation systems can be added at the participant’s own expense.

Potential Resource Benefits of High Tunnels

Potential natural resource benefits from using tunnel structures include:

- (1) improved plant quality
- (2) improved soil quality
- (3) improved water quality through methods such as reduced nutrient and pesticide transport.

Features of High Tunnels

Commercially available high tunnel structures are made in numerous widths and lengths. The high tunnels are constructed of metal bow frames that are covered with a minimum of 6 mil greenhouse-grade polyethylene. Ventilation is achieved by means of a combination of roll-up side vents, occasionally roof vents and mechanical ventilation. The end walls are framed-in to create door and ventilation areas. The high tunnel structure covers several crop rows; is wide enough to allow crop growth to full maturity under the tunnel; and is tall enough to allow spraying, cultivation and harvest to occur with the tunnel intact.

Financial Assistance for High Tunnels

During the pilot period, high tunnel systems may be eligible for financial assistance through the Agricultural Management Assistance Program (AMA) and the Environmental Quality Incentives Program (EQIP). Financial assistance will be limited to tunnels covering up to five percent of one acre (2,178 square feet) per farming operation. This is equivalent to a structure size of approximately 30 feet x 72 feet. The seasonal high tunnel has a minimum expected practice life of 4 years. As necessary, other associated practices might be included for financial assistance as well.

July 2011

USDA is an equal opportunity employer and provider



Participant Responsibilities during the Pilot

- NRCS is interested in evaluating the effectiveness of seasonal high tunnels throughout this three year pilot period. Participants will be asked to assist NRCS with this effort by providing the following information each year when requested:
- First year only - the cost of installing the seasonal high tunnel system.
- Annual maintenance costs and requirements of the seasonal high tunnel system.
- How long did the structure extend the growing season?
- Did the seasonal high tunnel increase production? If so, how much?
- What rates of nutrients (N, P and K) were applied before and after the seasonal high tunnel structure was installed?
- What rates of pesticides (product and rate) were applied before and after the seasonal high tunnel structure was installed?
- Other observations, evaluations, and recommendations to improve their effectiveness.

Additional Eligibility Criteria and Limitation for Participating in the High Tunnel Pilot Program

- Because the intent of this practice is to support local food systems, the applicant must already be actively involved in growing vegetables and/or small fruits for local markets. Eligible applications are only for agricultural enterprises actively engaged in agricultural production for more than home consumption of produce.
- High tunnel sites must be relatively flat and well drained and approved by NRCS.
- In Vermont, only Gothic style high tunnels, which include additional bracing and support to better withstand snowloads and wind, will be allowed under this program. High tunnels are to be planned, designed, and constructed in accordance with the manufacturer's recommendation and specifications. All designs must be reviewed by NRCS.
- All crop production must be done in the soil profile or raised beds. No potted or containerized production or benches will be allowed in these structures.
- No alternative uses for the high tunnel structure are allowed during the non-growing season months. This includes no storage, no potted or containerized plant production, and no housing of livestock or poultry.
- Participants will be responsible for operation and maintenance of these structures including clearing snow on and around the high tunnel.

July 2011